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ABSTRACT

Since 1983, two waves of reform and analysis have swept through education in the United States. The literature from these reform efforts has probed some of the more complex reasons for the lack of achievement of the education system and called for many often-unrelated changes. However, the literature has not offered a cogent and integrated agenda for reforming education. In order to offer a plan to restructure the system as a whole rather than to tinker with single issues, the Aspen Institute convened two groups of educators, business representatives, and civic leaders in March and May 1989 to discuss the condition of and reform in education. These groups and three later groups of business leaders arrived at a consensus on the need for the following items: (1) clear and compelling national goals for public education; (2) sensible assessment of individual schools against local expressions of national goals; (3) a fundamental restructuring of the education system at all levels, usually including site-based management, a reaffirmation of the academic purpose of schooling, and an acknowledgment of a reasonable role of the school site for the delivery of social services to school-age children and their families; (4) business involvement in the development and sustenance of long-term, broad-based education reform coalitions at the community, state, and national levels; (5) harnessing technology for improving teaching, learning, and administration; (6) a commitment to improving the educational outcomes for all children, particularly for those children most at risk; and (7) strengthening and empowering teachers and school leaders. (KC)

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# INVESTING IN OUR FUTURE

## The Imperatives of Education Reform and the Role of Business

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# INVESTING IN OUR FUTURE

## The Imperatives of Education Reform and the Role of Business

*A Report*
*of the Education Program*
*of The Aspen Institute*

Jeanne Amster
Ernest L. Boyer
Judy S. Brown

Queenstown, Maryland
March 1990

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# Preface

The quality of our system of education will determine not only the competitive posture of the United States in a global economy, but also the ability of our citizens to enjoy the benefits of our democratic society. For this reason, The Aspen Institute joined a national effort for education reform by convening knowledgeable authorities from the public and private sectors to try to determine the most effective way of implementing promising new education education policy initiatives.

We are indebted to the Alvin I. and Peggy S. Brown Charitable Foundation and the Corning Glass Works Foundation for sponsoring these formative efforts to develop an ongoing agenda for education. We are hopeful that this agenda will provide the basis for a national initiative that will include corporations, state and local education authorities, union leaders and other concerned civic groups.

Success is not assured. But failure unquestionably will occur unless the combined talents of this society are brought to bear on one of the most critical issues of our time.

David T. McLaughlin
President and CEO
The Aspen Institute

March 1990

# Executive Summary

Since 1983, two waves of reform and analysis have swept over the landscape of U.S. education.

The literature from these waves of reform has probed some of the more complex reasons for the lack of achievement of the education system and it called for a host of often unrelated changes. These include career ladders for teachers, special programs for at-risk students, improved compensation for teachers, and school-based management. But while the reform literature has excelled at describing the problems besetting education, it has not put forward a cogent and integrated agenda for reforming education. A plethora of good ideas gluts the market for innovation. But the current challenge is to restructure the system as a whole rather than to tinker with single issues.

It was in this context that The Aspen Institute convened two groups of distinguished educators, business representatives, and civic leaders in March and May 1989 to discuss the condition of, and promise for, reform in U.S. education. Three subsequent meetings with business leaders affirmed the concerns of the March and May groups and provided an addendum to this report. Four questions informed a far-reaching discussion of educational practice:

- Given the lessons learned from the research and what practitioners can tell us about what is working, what are the current points of agreement among the various stakeholders?

- Where are there major points of disagreement to be resolved by testing further innovations?

- What needs to be done to bring further improvement?
- What can business do to be most helpful in improving the quality of education?

Among this diverse group of leaders, all involved in the question of how to improve the quality of K-12 education, remarkable consensus emerged on the need for the items listed below:

- clear and compelling national goals for public education.
- sensible assessment of individual schools against local expressions of national goals.
- a fundamental restructuring of the education system at all levels. That restructuring will usually include site-based management, a reaffirmation of the academic purpose of schooling, and an acknowledgment of a reasonable role of the school site for the delivery of social services to school-age children and their families.
- business involvement in the development and sustenance of long-term, broad-based education reform coalitions at the community, state and national levels.
- the harnessing of technology for improving teaching, learning, and administration.
- a commitment to improving the educational outcomes for all children, particularly for those children most at risk.
- the strengthening and empowering of teachers and school leaders.

The opinions expressed in the report were shaped by its authors, Jeanne Amster, Ernest Boyer and Judy Brown.

# The History of Education Reform

Historically, Americans have defined success by the promise of a better life for their children. From Thomas Jefferson to Horace Mann, from W. E. B. DuBois and Booker T. Washington to John F. Kennedy and Lyndon Johnson, from the most humble to the most powerful, education has been the vehicle for self-renewal and opportunity in our society. Yet, as surely as Americans have rhetorically invested their aspiration in their educational system, they have constrained that system's promise by fragmenting its purpose and denying or ignoring the potential of Americans who are voiceless in the political process.

Traditionally, the debate over the purposes of schooling has reflected the perceived needs of the nation at different times in its history. After the Revolutionary War, the republic required educated citizens who could wield the levers of democracy. Only a literate society could engage in self-rule. George Washington, Thomas Jefferson, Benjamin Rush, and Abigail Adams all recognized that the political survival of the young nation depended on civic education.

In the nineteenth century, Horace Mann came to advocate education as "the great equalizer." By investing in the human capital of individuals, opportunity would be kept open to the brightest and the most able. From industrial Massachusetts to the rural South where millions of former slaves embraced schooling as their first step of freedom, education was seen as a vehicle of individual fulfillment.

In the twentieth century, education embraced the challenges of assimilating the millions of immigrants who fueled the rapid growth of the manufacturing industries with their labor. Schools taught English and helped young people teach

their parents how to navigate the complex institutions of their adopted society. Even in an age where the work place required limited skills, the relationship between schools and the economy was explicit.

Later in the century, when the Soviet Union put a satellite in orbit, attention was drawn to the academic and in particular scientific content of U.S. schooling. The school's role became one of identifying talented youth and steering them on a course toward college. The hope was that talent in leadership positions in science, industry and government could determine the competitiveness of American institutions.

Yet a national talent search was not in itself a sufficient goal for education, for the millions of people who continued to see schools as the primary avenue to social mobility, as they had from the birth of the nation. With the racial desegregation movements of the 1950s and the promise of the "Great Society" in the 1960s, schools once again became the articulated path of aspiration in the society.

Thus schools have tried to meet society's expectations that education respond to national crises of identity, promote the assimilation of millions of new citizens, satisfy the need for scientists and the requirement for national competitiveness and fulfill the promise of opportunity. In the same way that schools respond as instruments of public policy, they also reflect our national will - our will to see ourselves as our brothers' keepers, our will to take problems to solutions, and our essentially individualistic approach to policy issues and the realization of human potential and national aspiration.

Ironically, although the education system has defined itself historically in relation to the changing perception of national needs, its governance, finance, content, and administration have always been determined by an idiosyncratic and powerful complex of local and state institutions and priorities. In 1989, some 60 years into the school consolidation movement, 16,000 school districts and 80,000 schools individually struggle to fashion a coherent educational product for two million teachers to teach to tens of millions of young people. In recent years, while the preponderant burden for

financing education has shifted from the localities to the states, the definition and scope of education have remained in local hands.

A dazzling array of reports, exposes, and prescriptions in the past decade has persuaded Americans that schools in the United States have failed to meet the challenges of an economically competitive, democratically vital society. A complex and intricate tapestry of factors suggests that the infrastructure of U.S. education, from the potency of its teaching force to the efficacy of its product, are in a state of stagnation at best and collapse at worst. Notwithstanding an infusion of additional funds, test scores continue to decline, employers report that high school graduates lack adequate academic and personal training to execute simple tasks, and teachers continue to leave the profession dispirited and defeated. All constituencies, from classroom teachers to corporate employers, agree that the educational product and process has been compromised by unclear goals, poor measures of success, nineteenth century management and accountability structures, and a bloated curriculum characterized by mediocre vision and content.

Since 1983, two waves of reform and analysis of education have swept over the landscape of U.S. education. The first set of reports, starting with *A Nation At Risk* in 1983, called the nation to action by detailing a striking decline in the overall academic achievement of students, the low pay and status of the teaching profession, and the limited abilities of workers entering the ranks of the employed. These reports were filled with apocalyptic visions of a deteriorating culture and offered blueprints for public policy action, typically at the state level.

A second wave of reports has built upon the economic rationale of the early 1980s: the educational product of schools at all levels determines the economic future of the country. These reports probe some of the more complex reasons for the lack of achievement by students and schools. They call for a host of changes, from career ladders for teachers, social programs for at-risk students, improved compensation for teachers, and school-based management. The recent reform

literature has excelled at describing the problems besetting education, but it has not moved forward a cogent and integrated agenda for education reform. A plethora of good ideas gluts the market for innovation. But the current challenge is to restructure the system as a whole rather than to tinker with single issues.

Teaching and learning problems have been exacerbated by the distressing and compromised environment that surrounds the education process. Drugs, teen-age pregnancy, and broken families damage the learning environment. Teachers spend more and more of their time seeking to help their students respond to the ravages of fractured personal lives. The principal of one inner city high school in California reported that thirty percent of her students come from homes with neither parent available. (A majority of the city's other students come from single parent homes.) While schools have always reflected their social context, rarely in U.S. history have they been expected to become full time social service agencies.

Yet despite this sobering—indeed desperate—assessment, a variety of recent initiatives suggest the possibility of a far-reaching transformation of the U.S. education system. As Americans have become concerned about their children's schooling and their employees' knowledge, they have invested time, energy, and creativity into reviewing the educational process and product. Business and education recognize that the primary factor of production in the twentieth century will be the human intellect. In several school districts, union leaders and school superintendents have fashioned collaborative and creative relationships that have unleashed teachers and principals at the school site. University professors and classroom teachers have joined in far-reaching curriculum efforts in some of the poorest districts in the nation. A broadly composed task force, the National Board for Professional Teaching Standards, is reviewing teacher certification from the national perspective. Education and government leaders seem to have increasing confidence in the National Assessment of Education Progress, a test that evaluates a broad

range of students at regular intervals during their school year. These and other initiatives offer hope for greater clarity about school curriculum and performance. The revitalized commitment of governors and business leaders offers the promise of a sustained public policy initiative.

It was in this context of crisis and renewal that The Aspen Institute convened two groups of distinguished educators, business representatives, and civic leaders in March and May 1989 to discuss the condition of, and promise for, reform in U.S. education. Three subsequent meetings with business leaders affirmed the concerns of the March and May groups and provided an addendum to this report. Four questions informed a far-reaching discussion of educational practice:

- Given the lessons learned from the research and what practitioners can tell us about what is working, what are the current points of agreement among the various stakeholders?
- Where are there major points of disagreement to be resolved by testing further innovations?
- What needs to be done to bring further improvement?
- What can business do to be most helpful in improving the quality of education?

A fifth question emerged early in the conferences and informed all subsequent discussion: Given the shift from a nation of isolated local communities to one confronted by the common challenges of social tensions, international economic competition, and the need to educate all of its citizens, is it time to articulate a set of expected national outcomes for education, while encouraging revitalized local participation?

The groups reviewed these questions as they analyzed six key areas of the education debate: Administration and governance; personnel issues; curriculum; the impact of technology; the social context of the school; and effective partnerships that enhance the school's ability to deliver educational services.

All of the participants—including professional educators, business leaders, and civic leaders—articulated an urgent need to improve the education system and the product it delivers. There was no debate over the need for immediate national, state and local intervention to improve schools. Specific policies, however, were difficult to articulate because of ambiguity about the scope and responsibility of schools. A real concern existed about the blurred mission of education. Many in the group believed that the time had come to think carefully and systematically about national outcomes in education and to develop an appropriate method for assessing student and school performance. But many others were also concerned that such a process might produce outcomes that significant stakeholders in education would not be able to support.

# Administration and Governance

Nations and businesses throughout the world puzzle to find ways to become more competitive and more efficient in their delivery of goods and services. From Mikhail Gorbachev's Soviet Union to the local Burger King, leaders are exerting tremendous energy to restructure organizations by bringing responsibility and decision-making down to the local or building level. Policy and goals are set at the national or corporate level; creative implementation is sought at the local level. Businesses have learned that such restructuring inspires creativity, efficiency, and productivity when leadership and line personnel can agree on effective local approaches. School systems, by contrast, remain organized into large, impersonal bureaucracies with vague goals and rigid local managerial structures.

The current model of school governance is derived from the management theory of the nineteenth century, in which a centralized bureaucracy sought to control a uniform output at the individual or product level. Numerous layers of managers assert prerogatives, from the definition of jobs, to the regulation of the school site, to the implementation of curriculum. Teachers and principals at the school site were, and often still are, burdened with a baffling array of objectives that serve to protect the bureaucracy's interests rather than to advance the needs of individual children.

Wealthy societies with excess capacity and limited competition can afford to misallocate surplus resources in the hope that redundancy and good will assure success. Business in the United States realized a decade ago that it needed to rationalize its processes to assure that responsibility for producing a competitive product could be borne and assessed at the line

level. Yet the education system lacks a coherent management structure. And at the same time, it is subjected to influences from a confusing array of players including: the U.S. Department of Education, the U.S. Department of Health and Human Services, the Environmental Protection Agency, the Surgeon General, the federal, state, and local judiciaries, state government and regulatory agencies, vocational education groups, lobbying groups seeking to include courses of study from driver education to consumer education, the National Alliance of Business, the teacher unions, local employers and school boards, and so on. Balancing interest groups and the imperatives of local influence is a full-time job for a superintendent who wishes to keep the job. Furthermore, the peculiar system of rewards and compensation in the education system removes its best teachers and managers from classrooms and individual schools and assigns them to the central office. The better one performs, the further away from children one is assigned.

A vast array of laws, regulations, curricular experiments, and other challenges have led many in education to focus on efforts at change and retrenchment at the district rather than the school level. Since the publication of *A Nation at Risk* in 1983, many school systems have tinkered with innovations to try to improve the performance of their students, to the point where we are confronting a disparate set of good ideas. Notwithstanding new visions of, and constituencies for education, the same performance indicators that were developed in the post World War I era continue to be used on children today. These norm-based reference tests are structured to provide a curve in which half of those tested achieve below average scores and half above average scores no matter the achievement or lack of achievement of the system overall. There is no system for saying "an educated young person *must* be able to do x" and measuring an individual or all students against that standard. Instead, we measure where an individual student is in the pack. Such instruments do not appropriately assess what students have learned.

The absence of good measuring tools frustrates progress. Essential to any systematic process of school improvement will be the development of an agreed set of assessment devices, including a writing sample. Yet outcome measures alone do not offer an adequate incentive to reform. Indeed, business has learned that the key to transforming institutions is to change process measures before outcome measures. It is now clear that educators, observers of the education system, and the even the students who graduate with few skills or "vote with their feet" and drop out realize that a fundamental restructuring of the system is necessary to improve the performance of individual students.

The effective restructuring of education will require the acceptance of shared assumptions. Assumptions affirmed by The Aspen Institute participants include:

- Every school should be a competent organization for students and teachers.
- We know how to teach all children effectively.
- All children can learn.
- What children learn ought to be challenging.
- Special attention must be paid to those children who are most at risk in the society.
- Improving education will require a sustained collaborative effort by public and private agencies. There are no potential quick fixes.

Members of The Aspen Institute seminar discussed a variety of governance initiatives which offer promise of transforming the educational system at the national and local level. Some of the concepts and initiatives that attracted broad support were:

1. The establishment of a national forum to embark upon a sustained and systematic inquiry to establish national goals for education and link them with appropriate meas-

ures for assessing the progress that schools and children make toward achieving these goals.

2. The school and the student should be the focus of the reform effort. Every school should be a competent organization with the resources to identify the needs of each of its students and the flexibility to respond to them.

3. Structural impediments that prevent schools from teaching an adequate academic curriculum should be removed. No English teacher can effectively teach 180 students how to write. Creative combinations of curriculum and pedagogy (which are often thwarted by state regulations) are necessary to modernize the curriculum and assure good performance from every student.

4. New collaborative arrangements—between business and schools, social service agencies and schools, parents and schools, and government and schools—will be necessary to respond to the needs of all children.

5. New collaborative arrangements between teachers and administrators and a new incentive system for educators will be necessary to move the system forward. For example, the merit school movement rewards the organization for improvement of student performance by providing sizable grants to schools who are successful in a competition among schools. In a system in which conformity traditionally has been rewarded, teachers are more likely to take the risks of innovation if they can see the promise of success for their students and reward for themselves.

6. Unions and school system managers need to devise new contracts that place responsibility at the school site. School-based management offers great potential for developing appropriate curricular and pedagogical innovations at the individual school. Further, it places professional responsibility for teaching and learning at the level of delivery.

Few of these initiatives would cost a great deal of money. What their implementation requires is political will and personal fortitude. Persistence will be the key to the success of the current reform effort. Many of the factors that will help are already in place. Government, unions, educators, and researchers have embarked upon a series of innovations designed to improve the lot of children. Corporate America has models of restructuring to offer education. Workshops in on-site management can offer established wisdom to those principles and others on the front lines. Given the will to improve education at all levels, there is reason to be hopeful about the fate of our children.

# Personnel

Educators and business people ask the same question: Who will be our key workers in the years ahead and what skills will they bring to the work place? For both sectors, the prospects are harrowing. Education faces the potential of massive teacher shortages in the next decade as an aging teacher force retires. Many of these experienced teachers are women who entered the profession when career options for highly educated women were limited by social mores. The generation of women that would have followed them now have other options. The issue is especially acute in minority groups in which few college graduates consider teaching to be sufficiently rewarding to eschew the financial opportunities of other jobs. In a country where in many school districts the majority of students come from minority groups, the absence of educated black and Hispanic role models as teachers is particularly disturbing. In sum, the education system faces significant challenges in recruitment, recognition, renewal, retention, and remuneration in the years ahead.

For meaningful change to take place, personnel, working conditions and advancement opportunities will need to change radically. In most communities, levels of compensation remain low—if not at entry level, certainly for experienced teachers. Job definitions often include tasks such as restroom monitoring and lunch room supervision. The public view of the teaching profession is not flattering. Therefore, prestige no longer serves to offset other disadvantages. Teachers often lack the basic resources necessary to get their jobs done. Professional isolation, absence of good evaluation and development techniques, and lack of training diminish the

profession's potential. The impact on students can be devastating. In North Carolina alone, 25,000 students are taught math by teachers uncertified in mathematics.

New strategies are necessary to attract and retain teachers. The traditional view of teaching as a single career from college to retirement must be adjusted to new realities. Shorter careers in teaching may be acceptable. While it is difficult to persuade a 21-year-old to take a lifetime vow of poverty, young people may be willing to make a three to five year commitment to teaching. Similarly, mid-career professionals may offer a lucrative pool for recruiting academically competent, experience-rich individuals willing to be trained to teach. The traditional pool of potential teachers is drying up, but a commitment to teaching can be instilled earlier in a young person's career. In several parts of the country, sixth and seventh graders are being encouraged to see teaching as a potential career by means of special Saturday study and scholarship opportunities.

None of these non-traditional approaches will be helpful if the entire structure of teacher renewal is not overhauled. Most teachers regard "curriculum days" or "in-service training" as a waste of time. By contrast, corporate America regards the "corporate classroom" as an essential ingredient of competitive success. Some $200 billion a year is spent on corporate education. The entire kindergarten through grade twelve system costs $180 billion a year.

Tremendous energy has been spent in recent years reviewing the problems of the teaching profession and some positive ideas have emerged. Priorities and goals for attracting, evaluating, and retaining good teachers need to be set and met. Credible levers that can manipulate supply and demand should be put in place. Above all, the problem must be clarified and a set of national and local strategies for reaching solutions adopted. The ideas which emerged from The Aspen Institute seminar included:

1. Establishing and rigorously insisting on the requisite qualifications for an entry level job in teaching.

2. Rewarding those who successfully embrace effective new ideas.

3. Being faithful to teaching standards; not compromising them with "emergency certificates." People who are trained to teach physical education cannot teach chemistry as competently as a chemistry major trained in pedagogy.

4. Establishing a career path on which effective teachers are financially able to stay in the classroom.

5. Explicitly including in the teaching role research, curriculum development, mentoring, and problem-solving.

6. Expanding the definition of staff development to include training technologies that may offer access to research in the field. Systematic ways must be found to enhance the knowledge of teachers throughout the U.S.

7. Understanding that some teachers join the profession for a lifetime and others for a short term and encouraging both approaches.

There is mismatch between the vision of a highly-trained, well-compensated, professional teaching force and the resources currently allocated to compensating teachers. Our nation urgently needs to build a capable teaching profession through recruitment, renewal and remuneration.

# Curriculum

Although the school curriculum should mirror the overall goals of education, little of substance has been said about the academic content of schooling in the recent surge of reports on education. Rather, the school curriculum resembles a bloated bill of fare composed of courses included to satisfy political constituencies. "Hyphenated" courses mandated over time by state legislatures satisfy various interest groups: consumer-education, driver-education, values-clarification-education, law-and-constitution-education, energy-education, water-conservation-education and so on. Any interest group with enough political power can get its curriculum mandated. Perhaps the undisciplined nature of the curriculum masks the absence of coherent educational aims. Members of the Aspen Institute seminar decried the additive approach to curriculum development and at the same time recognized the formidable political obstacles to subtracting from the curriculum. Nevertheless, a coherent national education system requires a coherent curriculum.

A danger of the recent reform movement is that as states and others have sought to upgrade curriculum, more content has been added. The added content is followed by additional days of testing. Instead, what is needed is a refocusing of the curriculum and more sophisticated evaluation measures. At the same time, school completion rather than academic achievement and competency has become the basis for the high school diploma. Consequently, high school graduates, particularly those from at-risk backgrounds, may be betrayed by a system that gives them credentials for their time spent in school. Students can graduate from high school without the competencies that assure success in their employment.

Members of The Aspen Institute seminar suggested a variety of processes that would help clarify the curriculum. These included:

1. Fostering ways of integrating pedagogical approaches with course content and promoting connections across subject areas. The content of course material cannot be separated from the means of instruction.

2. Promoting curricular goals that stress depth of coverage evaluated by analysis, essay, or exhibition, rather than those that encourage breadth of coverage by survey courses that are easily tested by multiple choice questions. Less of a subject taught properly and learned comprehensively serves the learning process better. One participant decried the proliferation of courses that span "womb to tomb and cover Plato to NATO."

3. Conducting a thorough review and development of effective classroom computer software. Although a plethora of software is on the market, few programs go beyond the electronic workbook to foster higher order thinking skills. Such a development will require collaboration between classroom teachers and university researchers; it will further require research and development in both the nonprofit and market sectors of the economy. This work is essential to achieving the qualitative improvements in education that are now possible through technology.

4. Recognizing that the course work in school has important short- and long-term goals. In the short run, basic skills must be mastered. In the long run, a good school seeks to create in a student the capacity for life-long learning.

5. Promoting collaboration between educational leaders, legislators and business groups to face the issues in vocational education. How is vocational education serving its current students and what transformations of curriculum should be fostered to train workers adequately for the year

2010? The "forgotten half," those students who do not go to college, need the best thinking of business and education leaders to map out a logical educational sequence of school completion and community college.

6. Emphasizing achievement, particularly for at-risk students, as the goal of education. Watered-down courses serve only to deceive all parties about the potential of schools and their students.

7. Based on coherent national goals, making the school site the critical location for curricular application. Teaching, learning, curriculum development, and school climate are determined on site. The scope and sequence of learning is best determined by those who work closely with students.

The restoration of the curriculum is a task in transition. The goal is to develop a meaningful curriculum that can foster essential literacy at a level that assures a sophisticated and flexible work force, a sense of citizenship that can sustain the democracy, a moral education that will allow young people to consider the ethical dimensions of their decisions, and a sense of curiosity, comfort, and wonder that allows for life-long learning. The challenge is to focus on the essential national goals and then allow for maximum flexibility at the local level to implement them.

# Technology

The infrastructure necessary to support management information systems for effective decision-making is largely undeveloped in our educational system. Schools are the least automated industry in the United States. Large amounts of data are transmitted manually and summary information is extremely difficult to compile. Entire state education systems rely on manual reporting for school data.

No business of reasonable size today can operate effectively without automated systems for data collection, analysis and communication. School information systems can significantly enhance efficiency and productivity in areas such as student scheduling, attendance and achievement data, personnel, transportation, food service, federal and state reimbursement schemes, and financial management. In the areas of measurement and accountability, large, comparative assessments cannot be managed without proper information systems.

With effective communication networks, the isolation of the education profession can be minimized and information can be shared in a timely manner. Convenient teacher access to telephones is a minimum expectation. Conferencing software can enable professional dialogue on curricular or administrative issues and enable collaborative work across physical boundaries. Such tools, which are essential in businesses of comparable size, are vital to a professional's productivity. Information system support can give the greatest possible return on investment in education and free up valuable staff, whose salaries comprise more than 85 percent of most school budgets, to perform at their highest efficiencies.

The group also recommended using technology to create a national data base of research in education as a means of promoting teacher excellence and renewal. Such a data base would also help end the isolation of individual teachers. The criterion for the inclusion of research in the data base would be peer review of the material by classroom teachers. With such a system, teachers could benefit from each others' experience and wisdom as they experiment with new materials. Another consequence of such a use of technology would be the incentive for teachers to become comfortable with computers and their uses. Such a development would surely enhance computer education for students. And finally, such an information rich system can go a long way toward strengthening site-based management as it eliminates layers of specialists between the source of research and the teacher.

## Social Context

Significantly, there was much debate at the Aspen Seminar over the role of the school in the community. Was it the responsibility of the school to offer a broad range of social services to its students, particularly where none were otherwise readily available? Should a school be a drug treatment center, restaurant, supermarket, counseling center, hospital, and hostel? In addition to offering an academic curriculum, is a school a recreation center, shelter, and safe haven?

In a nation where the gap between rich and poor is growing, where 20 percent of all children are born into poverty, and where half a million teen-age girls give birth every year, the challenges for academic education are formidable. For years, schools have quietly compensated for the absence of social services on a small scale. Compassionate teachers have routinely taken distressed children home with them when other options were unavailable. A flashpoint for those who have no other place to go, schools have responded by silently absorbing an expanded social service mission without credit, compensation or accountability. Yet the number of children bereft of basic health services seems to be growing, particularly in inner cities, and many turn for help to schools as the only social service agency in their neighborhood. The dilemma for the education system seems instantly clear. As more and more social service agencies become institutionalized in schools, often inadvertently, an inevitable fragmentation of the purpose of the schools further erodes the promise and content of education.

If children arrive in class in a reasonable state of physical, emotional, and intellectual preparedness, they are ready to begin academic and intellectual development. While the

myriad barriers that might thwart such readiness are obvious, responsibility for attacking such issues remains fragmented. Should schools be the site of expanded social services for youth, with a separate and clearly delineated and protected education function? Or should other agencies be explicitly charged with the responsibility for providing services to young people and their friends and families? How can appropriate collaboration among social service agencies be fostered, integrated, and rationalized to bring resources to the neediest members of our society? Case managers must be located somewhere who can navigate the different agencies and work as advocates for young people whose non-academic problems serve as barriers to learning.

The difficulties inherent in facing the problems of social context demand a rational answer. Business has been quick to recognize the challenges of providing total environments for its workers. From day care to health care, the modern corporation recognizes that the impediments to productivity must be removed to assure successful performance. As a matter of public, rather than educational, policy people must face the fact that schools cannot do it all. They cannot be islands of academic excellence in a sea of social indifference. Nor should schools take on issues by default or in a piecemeal fashion. There is a need for the school debate and the debate on the future of children to overlap and for the responsible parties to collaborate around the critical issues.

## Partnerships

The participants in the Aspen Institute seminar attached particular importance to the potential effect of partnerships between business and education. Many in the group discussed an evolution—from business people who are parents participating in the local debate, to adopt-a-school programs in which businesses and schools engage in a "getting to know you" relationship, to systematic programs of businesses helping schools become competent institutions and develop competent learners. Business also offers potential support as an interest group that can pressure government to deregulate education from particular mandates in order to focus on the overall goal of student achievement.

There are several possible alliances:

1. Local businesses can help school districts establish and finance merit schools programs. Districts establish a financial incentive program where by participating schools set goals and compete among themselves for financial rewards. Such programs unleash faculty and other personnel at the school level to define student achievement goals that challenge all students at the site to improve in measurable ways. Furthermore, such competition may encourage innovative staffing patterns and compensation schemes, formerly precluded by local union-management relationships.

2. School-based management programs can benefit from the expertise of business in promoting accountable goal setting and management structures at the building level. From inviting principals to local business management

seminars to devising appropriate systems of accountability, the recent experience of business in rationalizing its own operations well serves current educational initiatives.

3. The development and implementation of technology for administrative and learning purposes offers promise to all schools, teachers, and students. Businesses are well versed in the virtues of technology for communication, efficiency, professional development, and product development. Schools continue to use the textbook, blackboard, and lecture as the primary modes of instruction. All schools, but particularly schools and students at risk, could benefit from access to the equipment, training, and sophisticated software. Business possesses expertise in all three areas.

4. Business can help local schools and community and social agencies that must better serve children to engage in strategic planning with five year horizons. Such planning could help schools set realistic, appropriate goals and articulate methods for achieving them in a way that can build public support. And such planning can ensure a stronger response to some of the social problems that bedevil children and schools.

5. Business can encourage substantial parental involvement in education by encouraging their employees to support academic achievement by their employees' children.

6. Business can foster alliances among government, social service agencies, schools, and communities to improve schools over the long run. In Boston and Chicago, business has used economic leverage to illuminate and focus policy attention on the products of schooling. Further, the promise of a good job has been explicitly linked to school completion.

7. Local businesses that employ teen-agers can stress academic achievement as a prerequisite for employment and

retention. Employers should examine the work schedules of their young employees to determine whether school performance is compromised by work demands.

8. Business can persistently ask the right questions about educating for the future and focus the public agenda on achieving necessary change.

## Conclusion

The problems that confront the educational system are formidable. But they are no less complex than the barriers to the economic and social progress in the rest of the country. If education is a vehicle of our aspirations as a nation, then it is also a mirror of the failure of our public policies. As the web of poverty, poor health, and limited education frustrates those who lack financial resources, policymakers turn to the school and assign responsibility to education for remedies to social problems, rather than facing those problems in their environment. When graduates of academic and general high schools lack the basic skills required at the entry level of business, we have sought to address the problem by adding material to the curriculum rather than requiring higher achievement from students, teachers, and schools.

The time has come for a national debate on education policy. There are many outstanding ideas on the micro level: school-based management, technological innovation, and partnerships between and among schools, business, and social service agencies. Wonderful teachers and highly motivated students continue to pave a path of opportunity in some schools. Yet these innovations are taking place in a tiny minority of the nation's 80,000 schools. Many members of The Aspen Institute seminar used the language of crisis and national economic survival to describe the situation. One wistfully commented, "If we could shoot a Toyota into orbit, we could galvanize the nation." Historically, change in education has taken as long as 50 years to implement. The present challenges do not allow us such luxury.

# Addendum

In August and September, 1989, as a follow-up to the March and May seminars, The Aspen Institute invited three groups of business leaders to join selected educators to discuss the challenges businesses face in their effort to work with educators toward school improvement. The goal was to help the business leaders to "leverage" their investments (financial and human) in education.

A number of conclusions emerged from the three Education Roundtables. Some ratified and strengthened the ideas developed by the education seminar. Some went significantly beyond the conclusions of the seminar.

The Roundtable discussions suggested the following contributions. The language and ordering of priorities is that of the authors:

1. Business has a real power and responsibility to focus the public debate on education, at a national, state and local level.

2. To affect the quality of local schools, business leaders must energize and institutionalize broad-based coalitions for educational improvement at the local level.

3. Business and education need to develop a menu of appropriate business interventions that can contribute to the goals of school reform. Educators must realize that different business sectors have different capacities for contributing to educational improvement, but that all contributions are more likely to be valuable if forged within the framework of a coalition with clear goals.

4. Business must encourage higher education to take the leadership role in improving the preparation of teachers, principals and superintendents. It is business that can most likely motivate the various schools within a university—business, engineering, public health, and public policy—to turn their attentions to the improvement of education. Research that defines the needs of children, the role of curriculum, and appropriate assessment must be encouraged. This is not merely the role of education schools, but of universities as a whole.

5. Businesses, many of which have recent experiences with their own restructuring, may be helpful to school systems as they plan and implement site-based management, which seeks to tap the potential of existing school personnel at the building level.

6. Business and education recognize the correlation between early intervention and later achievement. In its efforts to ensure that the best investment is made, business must keep the debate focused on the importance of these programs for younger children.

7. Business ought to celebrate, elevate, and empower teachers.

8. Business leaders can take on short and long term involvement with school personnel, on- and off-site. They can mentor, consult, and invite school professionals into appropriate management and educational training sessions.

9. Business leaders recognize the difficult issues and complexities posed by the social problems that imperil academic learning for many children. Business has a responsibility to help schools protect and promote the academic curriculum, but at the same time accept the future function of the school site as a location for the delivery of social services to the school-age population. And business can

play an important role in causing the human service agencies to be more responsive to the needs of school-age children and their families.

10. Businesses are far ahead of school systems in their ability to use technology for educational purposes. Business-educational partnerships in the area of technology offer potential to redesign the curriculum, reform teaching methods by placing the tools of learning in the hands of students, and restructure the management of schools by connecting teachers directly with vital information about the best practices in their fields.

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